



Versatile Information System - Integrated, ONline (VISION)

PM ITTS STOC Industry Conference

20 March 2002

Project Director: Bob Arora

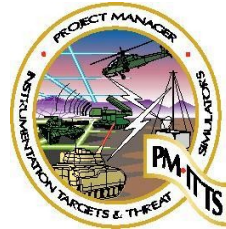
STRICOM PM-ITTS-I

(407) 384-3976 (DSN: 970)

bob_arora@stricom.army.mil



PROGRAM TEAM



Program Acquisition Team:

Name: Bob Arora

Name: Dr. Sam Harley

Organization: US Army STRICOM Center

Organization: US Army Aberdeen Test

Duty Title: Project Director

Duty Title: Technical Director

**Telephone: (407) 384-3976 (DSN: 970)
(DSN 298)**

Telephone: (410) 278-9463

FAX: (407) 384-5248 (DSN: 970)

FAX: (410) 278-4116 (DSN 298)

E-mail: bob_arora@stricom.army.mil

Email: sharley@atc.army.mil

20 March 2002

**I
M
O**

PM-ITTS



What is VISION?

- **VISION is a comprehensive, holistic, top down redesign of the manner in which information is collected and managed, and ultimately transformed into knowledge**
- **VISION employs a web-centric approach that merges and exploits instrumentation and information management technologies.**



Background

- **Started in 1998 as an Aberdeen Test Center Research and Development - Instrumentation project**

- **Current features/capabilities**

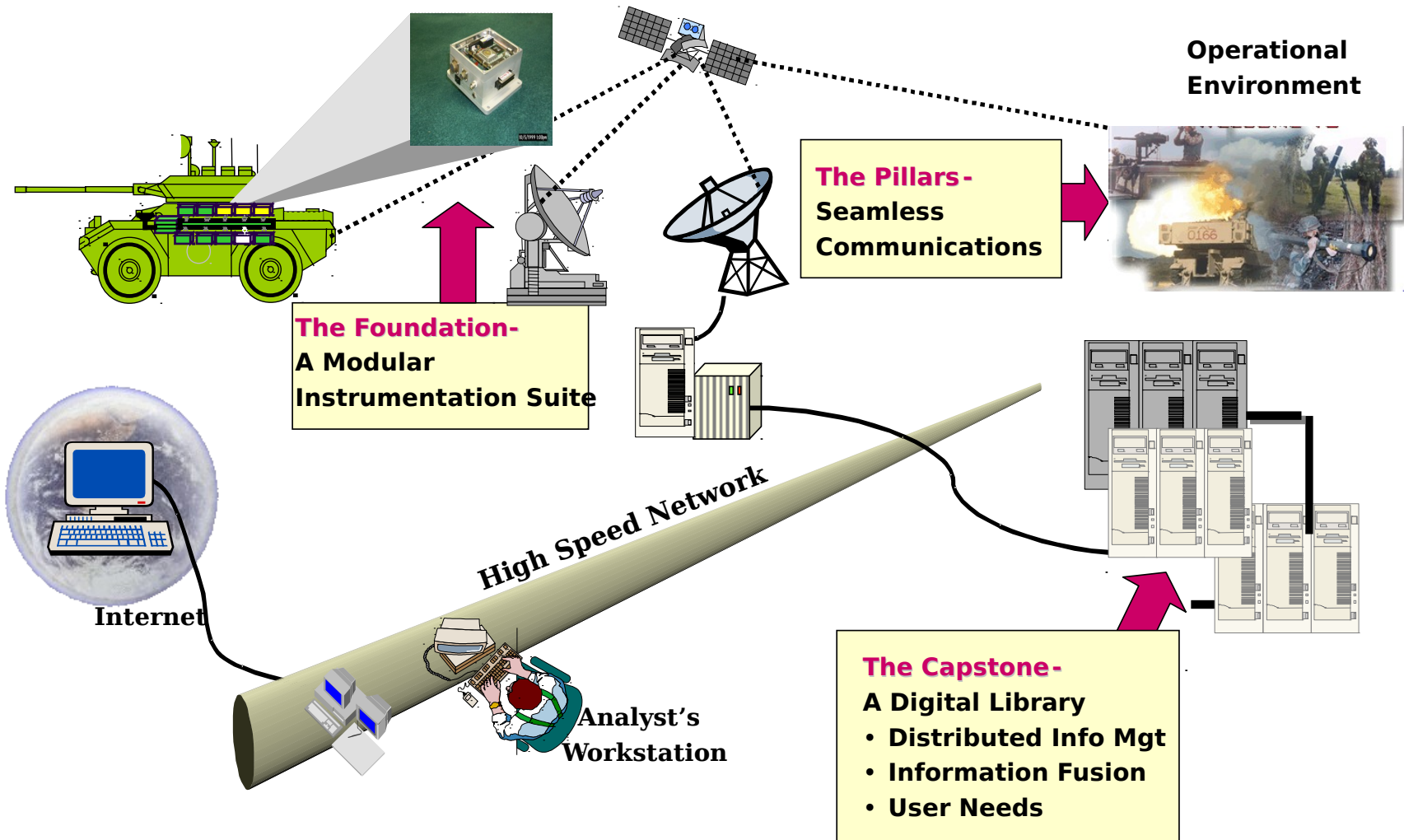
- Small ruggedized Advanced Distributed Modular Acquisition System (ADMAS) devices
- Wire neutral TCP/IP communications
- VISION Digital Library

VISION aids modeling and simulation efforts by:

- Decreasing the time required for test and experimentation
- Provide high fidelity reusable data
- Life cycle cataloging and management of information



Components of VISION





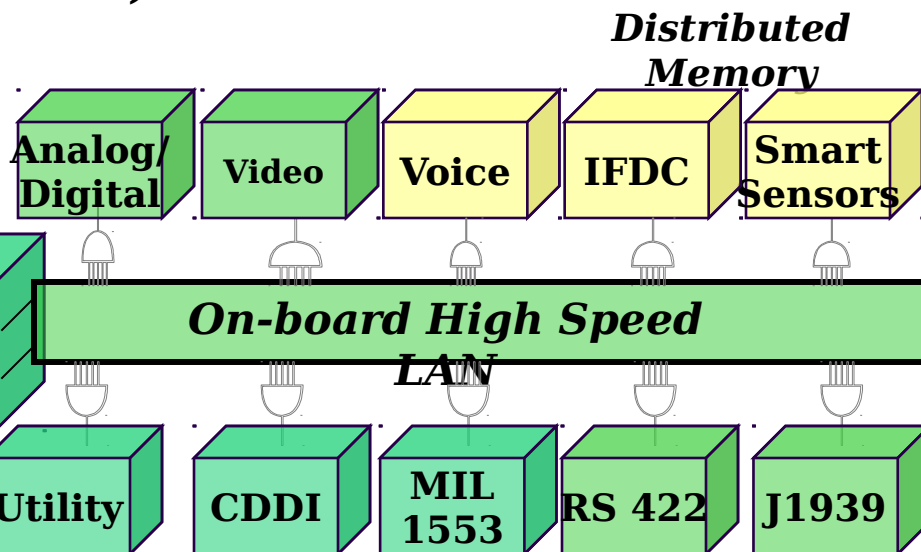
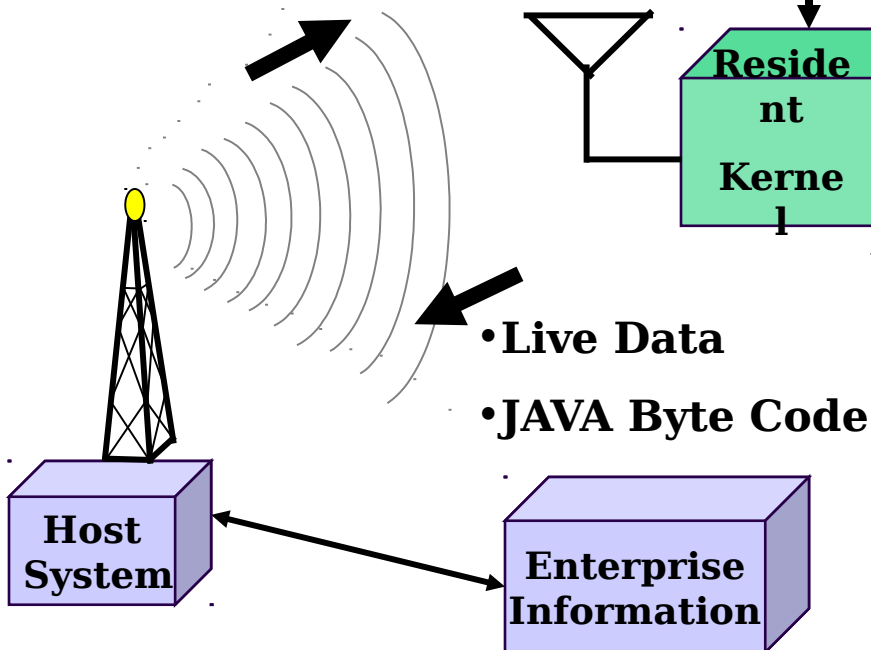
Instrumentation Technology Devices



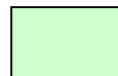
ADVANCED DISTRIBUTED MODULAR ACQUISITION SYSTEM (ADMAS)

- Configuration & MetaData

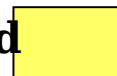
- Test Controller Input



- Object oriented design
- Scaleable
- Remote display and control
- Long term compressed data storage
- Flexible data transfer - fast data access



Fielded



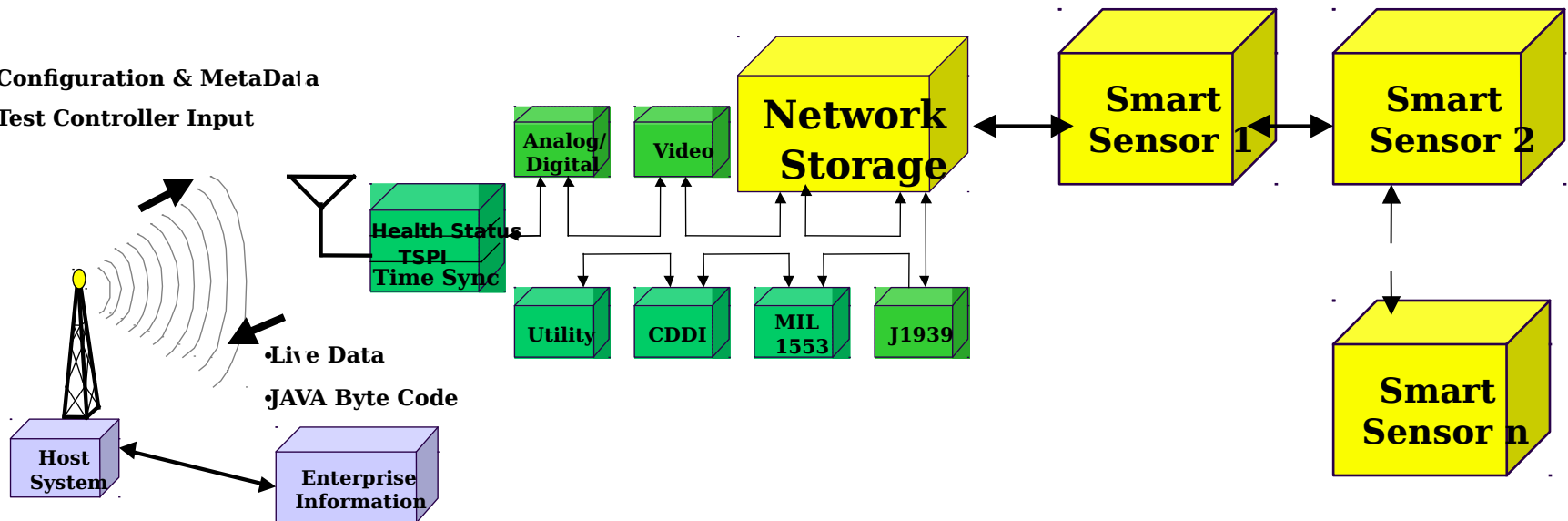
Planned

PM-ITTS



Smart Sensors Enhancement

- Configuration & MetaData
- Test Controller Input



Existing network devices converted to IEEE 1394



Smart sensor developments



STOC Business Opportunities

Acquisition Strategy

Individual awards for each VISION component development effort

FY02 Specific Area of Interest

ADMAS

- Smart Sensor Development
 - Motion Analysis Smart Sensor

FY03 Specific Areas of Interest

ADMAS

- Smart Sensor Development
 - Ride Quality Smart Sensor
 - Voice Based Test Incident Report Smart Sensor
 - Acceleration Analysis Smart Sensor
- Objected Embedded Software

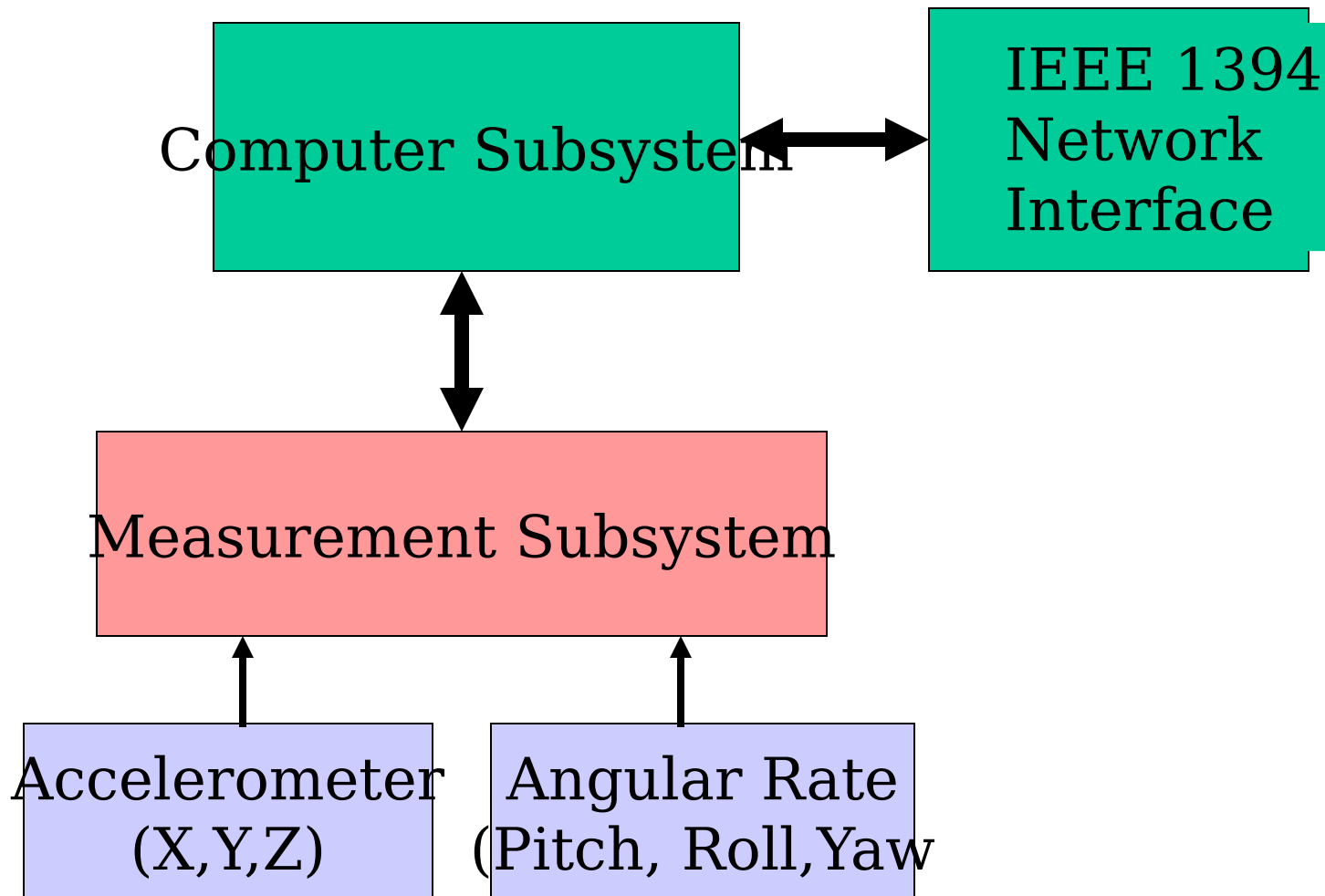
FY04-FY07 Areas of Interest

- Continued Smart Sensor and Digital Library

Development



Motion Sensor – Planned First Smart Sensor



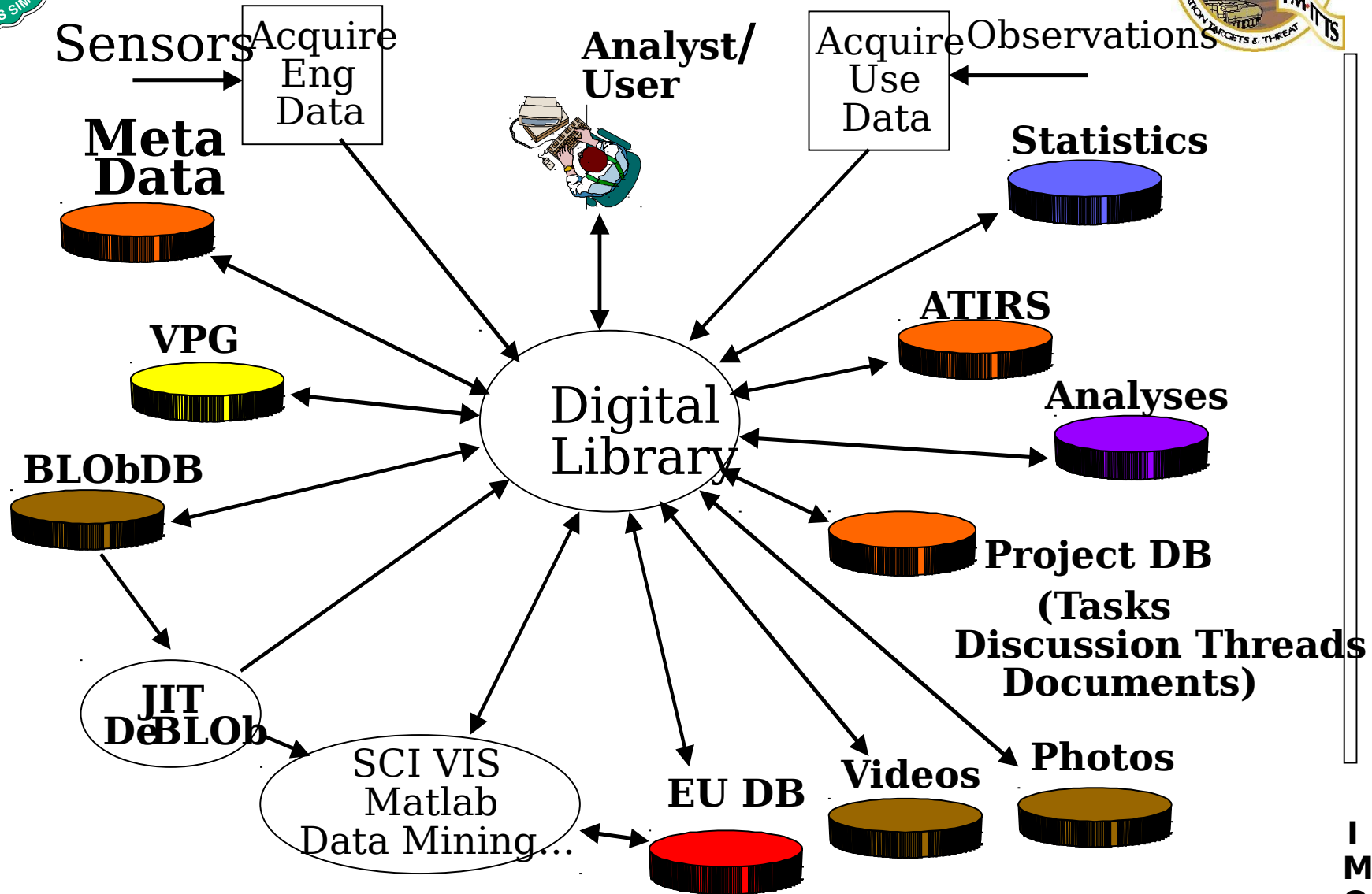


What is a Digital Library

- An ***integrated*** system of computer tools, services, data, applications and human processes, built to approved architectures, that enable the use of “***digital***” information to create ***knowledge***



VISION DATA FLOW





STOC Business Opportunities

Acquisition Strategy

Individual awards for each VISION component development effort

FY03 Specific Areas of Interest

Digital Library

- Integration of Digital Library with Army Test Incident Reporting System (ATIRS) Database
- Integration of Digital Library with High Engineering Performance Database
- Computing Center



VISION

Program Schedule/Funding

	FY01				FY02				FY03				FY04				FY05				FY06				FY07			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
ORD Generation				▲	▲																							
ORD Release/Approval					△																							
Draft SOW/RFP Request					△																							
Proposals Due						△																						
Evaluations							△	△																				
Program Reviews								△		△		△		△		△		△		△		△		△		△		△
ADMAS Development						△																					△	
Data Management						△																					△	
Digital Library						△																					△	
Instrumentation Acquisiton							△																				△	
Security							△																				△	
VISION-CVII Integration						△						△																

Fiscal Year										
<i>in millions \$</i>	PRIOR	2001	2002	2003	2004	2005	2006	2007	2008	
Total Requirement	0	0	\$\$	\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$	



Acquisition/Contracting

(Current Status as of 20 March 2002)

Strategy

- Multiple Acquisitions program
- Starts in 1Q FY02 and ends in 4Q FY08 **(Completed in 4QFY07)**
- Full & Open Competition (with ORD being released Oct 01) **(ORD Currently Staffed)**
- Technologies: Microprocessors, FPGA, Real-time OS, Database, Digital Library
- Vendors involved: Sachs-Freeman Association, Science Applications International Corporation, Pro Object, Nanavati Consulting, SRS

Issues

- System Integrator is the Army
 - TCP/IP over Firewire
 - Security

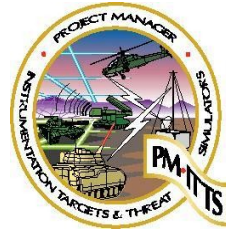


SUMMARY

VISION integrates instrumentation and information technologies to yield a network centric/web centric approach to data acquisition, information management, and knowledge synthesis.

VISION will aid modeling and simulation efforts by providing high fidelity reusable data while decreasing the time required for test and evaluation.

Potential opportunities lay in the development of Smart Sensors and the Digital Library



Acronyms

ATC	Aberdeen Test Center		
ADMAS	Advanced Distributed Modular Acquisition System		
ATIRS	Army Test Incident Reporting System		
CDDI	Copper Data Distribution Interface		
CVII	Common Vehicle Instrumentation Initiative		
DB	Database		
MANET	Mobile Ad Hoc Network		
JIT	Just In Time		
VISION	Versatile Information System, Integrated, Online		
VPG	Virtual Proving Grounds		